Appendix 1 Details of the 15 Rapid Cycle Improvement Metrics

	Figure 1 - RCI Metrics
1	Percentage of patients screened annually for depression in primary care
2	Percentage of primary care patients with a depression diagnosis who had symptom measures (PHQ9) at the initial evaluation, between 4 and 6 weeks of treatment, at 12 weeks of treatment, and 6 months after initiating treatment.
3	Percentage of patients treated for depression who were assessed, prior to treatment, for the presence of current/past manic symptoms.
4	Percentage of patients diagnosed with depression or bipolar disorder with evidence of an initial assessment for suicide risk
5	Percentage of patients diagnosed with depression or bipolar disorder with evidence of an initial assessment for substance use disorder.
6	Percentage of primary care patients with major depressive or bipolar disorder meeting severity/complexity severity criteria for specialty mental health services (as established by state and local payers) and were referred for specialty mental health care.
7	Percentage of patients referred to Mental Health specialty care who attended an initial visit
8	Average time to initial visit after referral to mental health specialty
9	Average number of contacts (phone and in-person) between primary care and specialty mental health to coordinate care
10	Percentage of patients in primary care with bipolar disorder with evidence of level of function evaluation at the time of the initial assessment and again within 12 weeks of initiating treatment.
11	Percentage of patients with bipolar disorder with evidence of monitoring for weight twice within the initial twelve weeks of treatment
12	Percentage of patients in primary care with bipolar disorder who were assessed initially for their symptom complex and then assessed for change in their symptom complex within 12 weeks to initiating treatment
13	Percentage of patient treated for bipolar disorder with evidence for screening of hyperglycemia within 6 weeks after initiating treatment with an atypical antipsychotic agent

14	Percentage of patients treated for bipolar disorder with evidence of screening for hyperlipidemia within 16 weeks after initiating treatment with an atypical antipsychotic agent
15	Percentage of patients with diagnoses of depression with depression symptoms meeting remission criteria at 12 weeks and at 6 months.

Appendix 2 - Case Study of a CHC and CMHC Partnership

Here we highlight the experience of one of our teams from the third cohort. This team was located in a suburban setting in the Midwest. The CMHC has been in existence for over thirty years and serves approximately 8,000 clients per year. The CHC is an FQHC and has been in business for 11 years, serving approximately 25,000 patients per year across three service sites. The team had been collaborating prior to the project with two behavioral health consultants (BHCs) employed by the CMHC placed in the FQHC sites.

The BHC took on many care management roles including mediating communication between psychiatry and primary care, rapid availability to primary care providers throughout the day, and the use of a paper based registry to augment routine outcome measurement. Ninety-five percent of the BHC contact with the consulting psychiatrist was by phone or by text message, with over 700 consultations occurring during the 12 month project. The average duration of these consultations was 7 minutes with the vast majority focused on psychopharmacology (85%) and less often diagnosis (23%), referral logistics (13%), and behavioral management (11%).

Diagnosis, in particular the differential diagnosis of bipolar disorder emerged as a primary issue in which BHC and psychiatrist expertise was helpful. Through careful logging of the diagnostic process the team was able to look closely at the distribution of mood disorders, namely bipolar-I, bipolar-II, and mood disorder NOS, and to begin to customize their treatment protocols in accordance with the more detailed diagnostic procedures, particularly being alert to patients who fall into the “mood disorder NOS” category who may require pharmacologic and nonpharmacologic treatment for bipolar rather than unipolar disorder for treatment to be effective. They were able to apply significant attention to the issue of bipolar disorder, identifying and providing treatment for 158 bipolar patients in the CHC during the one-year LC. Despite their work on reduction of referral barriers (for example, the BHCs were able to directly obtain CMHC intake appointments via their computers located in primary care) they encountered patient reluctance to being treated in a CMHC. While there were a variety of reasons presented, stigma may have been the most important underlying issue.

The results of their efforts yielded a number of quality improvements. PCPs felt better supported and thus more open to addressing bipolar disorder and managing the pharmacotherapy. This team was able to achieve high levels of monitoring for metabolic syndrome in their patients on atypical antipsychotics (100% for all patients who returned for more than one appointment). They reported getting labs on 50% of these patients, indicating that the main reason for not getting labs was due to patient refusal based on costs. Most importantly, from a patient perspective, they reported at the end of the project that, while some of the patients with bipolar disorder had enrolled in CMHC services, almost half of them were stably engaged in care within the primary care setting.

The faculty noted that this team engaged in the LC procedures actively, utilizing the Rapid Cycle Improvement methodology routinely and successfully.

There were a number of lasting effects of the LC on the integrated care program beyond those directly related to depression management. The team felt that the structure and support of the LC went a long way towards giving credibility to the program, cementing the relationship between the organizations, stimulating the growth and development of the integrated programs and supporting the morale and creativity of the staff involved.

At the end of the LC, the team was stimulated to proceed with a number of additional joint projects, including:

Placing a CMHC satellite office in a new CHC clinic,
The creation of an ADHD protocol at the CHC medical director's request,
Using the CHC to see straightforward overflow cases from the CMHC waiting list, and
The placement of a CHC primary care provider in the main CMHC site to see seriously mentally ill individuals for their healthcare needs.
Finally, a number of practices found to be effective in the CHC have been adapted in the CMHC, for example, the regular use of rating scales such as the PHQ-9.